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EXAMINER

EWART, JAMES D

ART UNIT	PAPER NUMBER
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2617

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/080,889

Applicant(s)

CSAPO ET AL.

Examiner

James D. Ewart

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on amendment dated 11/23/2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Response to Arguments

1. Applicant's arguments filed November 23, 2007 have been fully considered by the Examiner but they are not deemed persuasive. The Applicant argues that the Office Action finds a base station with first and second standards in Padovani, sectored and omni antenna systems in Lindskog and a handoff from a first frequency to a second frequency in Muller, but fails to show why a person of ordinary skill in the relevant field to combine the elements in the way the new claimed invention does. All three of the references focus on handoff of wireless phones. The title of Padovani's invention is "Method and Apparatus for Reliable Intersystem ***Handoff*** in a CDMA System" the title of Lindskog's invention is "***Handover*** in Cellular System Utilizing Narrow and Wide Beam Antennas and the title of Muller's invention is "Inter-frequency Measurement and ***Handover*** for Wireless Communications". All three references indicate handoff occurs when the signal level falls below a predetermined threshold value. Therefore, all three references are very closely related in the field of endeavor. Padovani states in Column 12, Lines 17-21 that: The present invention seeks to provide a method and apparatus for handoff between collocated base stations without the unwanted side effect of increase interference." And Lindskog states in Column 2, Lines 51-54 that "a further object of the invention to accomplish a method in which interferences in a cellular system can be minimized" Therefore both Padovani and Lindskog solve an interference related problem and as the Examiner states the motivation to combine Padovani with Lindskog is to minimize interference of a cellular communication system. Padovani and Muller both are intersystem handovers and different systems often operate at different frequencies. Muller is simply used to show a teaching of such and the motivation to combine is to account for occasions that require switching to a new frequency.

Applicant further argues that Lindskog teaches the benefit of using a combination of a sectored antenna system and an omni antenna system on the same frequency in a single base station. The Handoff in Padovani is an intersystem handoff and not to the same basestation and intersystem handoffs often occur with frequencies that are different.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1,6,16 and 21 are rejected under 35 USC 103(a) as being unpatentable over Padovani (U.S. Patent No. 5,937,019) in view of Lindskog et al (U.S. Patent No. 6,804,522) and further in view of Muller (U.S. Patent No. 6,845,238).

Referring to claims 1, and 16, Padovani teaches for use in a base transceiver station of a wireless communication system, an apparatus for supporting dual standards (Figure 4) comprising: utilizing a first standard (Column 1, Lines 3-38, Column 5, Lines 13-18 and Column 11, Lines 13-15) within a coverage area (Figure 4, 126,128 and 130) and using a second standard (Column 1, Lines 39-41 & Column 11, Lines 10-11) within the coverage area (Figure 4, 126,128 and 130) and providing handoff between the two standards (Column 5, Lines 13-18), but does not teach handoff between a sectored antenna system for wireless communications and an omni antenna system for wireless communications. Lindskog et al teaches handoff between a sectored

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antenna system for wireless communications and an omni antenna system for wireless communications (Column 1, Lines 53-61 and Column 2, Lines 47-48). Therefore at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to combine the art of Padovani with the teaching of Lindskog et al. of providing handoff between a sectored antenna system for wireless communications and an omni antenna system for wireless communications to optimize performance and minimize interference of a cellular communication system (Column 2, Lines 45-54). Padovini further teaches inter-system hard handoff (Column 4, Lines 53-56), but does not teach handing off from a first frequency assignment to a second frequency assignment. Muller teaches wherein the inter-system hard handoff involves handing off from a first frequency assignment to a second frequency assignment (Column 4, Lines 6-13). Therefore, at the time of the invention, it would have been obvious to one of ordinary skill in the art to combine the teaching of Padovini and Lindskog with the teaching of Muller wherein the inter-system hard handoff involves handing off from a first frequency assignment to a second frequency assignment to account for handoff occasions that require switching to a new frequency (Column 3, Lines 48-50).

Referring to claim 6 and 21, Padovani teaches for use in a wireless communications system, an apparatus for supporting dual standards (Figure 4) comprising: utilizing a first standard (Column 1, Lines 3-38, Column 5, Lines 13-18 and Column 11, Lines 13-15) within a first coverage area (Figure 4, 126) and utilizing a second standard (Column 1, Lines 39-41 & Column 11, Lines 10-i 1) within the first coverage area (Figure 4, 126); and utilizing the first standard (Column 1, Lines 3-38, Column 5, Lines 13-18 and Column 11, Lines 13-15) within a

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second coverage area (Figure 4, 128) and utilizing the second standard (Column 1, Lines 39-41 & Column 11, Lines 10-11) within the second coverage area (Figure 4, 128) and providing handoff between the two standards (Column 5, Lines 13-18), but does not teach handoff between a sectored antenna system for wireless communications and an omni antenna system for wireless communications. Lindskog et al. teaches handoff between a sectored antenna system for wireless communications and an omni antenna system for wireless communications (Column 1, Lines 53-61 and Column 2, Lines 47-48). Therefore at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to combine the art of Padovani with the teaching of Lindskog et al. providing handoff between a sectored antenna system for wireless communications and an omni antenna system for wireless communications to optimize performance and minimize interference of a cellular communication system (Column 2, Lines 45-54). Padovini further teaches inter-system hard handoff (Column 4, Lines 53-56), but does not teach handing off from a first frequency assignment to a second frequency assignment. Muller teaches wherein the inter-system hard handoff involves handing off from a first frequency assignment to a second frequency assignment (Column 4, Lines 6-13). Therefore, at the time of the invention, it would have been obvious to one of ordinary skill in the art to combine the teaching of Padovini and Lindskog with the teaching of Muller wherein the inter-system hard handoff involves handing off from a first frequency assignment to a second frequency assignment to account for handoff occasions that require switching to a new frequency (Column 3, Lines 48-50).

3. Claims 2, 7, 17 and 22 are rejected under 35 USC 103(a) as being unpatentable over Padovani, Lindskog et al. and Muller and further in view of Haartsen (U.S. Patent No. 6,112,088).

Referring to claims 2, 7, 17 and 22, Padovani, Lindskog et al. and Muller teach the limitations of claims 2, 7, 17 and 22 but do not teach wherein one of the first and second standards is compatible with the other of the first and second standards. Haartsen teaches wherein one of the first and second standards is compatible with the other of the first and second standards (Column 4, Lines 19-26). Therefore at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to combine the art of Padovani, Lindskog et al. and Muller with the teaching of Haartsen wherein one of the first and second standards is compatible with the other of the first and second standards to eliminate the need for additional transmit and receive circuitry within the mobile terminal (Column 4, Lines 26-28).

4. Claims 3, 8, 18 and 23 are rejected under 35 USC 103(a) as being unpatentable over Padovani, Lindskog et al. and Muller and further in view of Gerdisch et al. (U.S. Patent No. 6,41,566).

Referring to claims 3, 8, 18 and 23, Padovani, Lindskog et al. and Muller teach the limitations of claims 3, 8, 18 and 23 but do not teach upon failure of wireless communications utilizing the other of the first and second standards within the coverage area, wireless communications utilizing the other of the first and second standards within the coverage area is resumed with the antenna system employed for the compatible one of the first and second

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standards. Gerdisch et al. teaches upon failure of wireless communications utilizing the other of the first and second standards within the coverage area, wireless communications utilizing the other of the first and second standards within the coverage area is resumed with the antenna system employed for the compatible one of the first and second standards (Figure 2, 206 & 208 and Column 6, Lines 1-5). Therefore at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to combine the teaching of Padovani, Lindskog et al. and Muller with the teaching of Gerdisch et al. wherein upon failure of wireless communications utilizing the other of the first and second standards within the coverage area, wireless communications utilizing the other of the first and second standards within the coverage area is resumed with the antenna system employed for the compatible one of the first and second standards to provide continued communication when a link fails (Column 5, Line 65 to Column 6, Line 7).

5. Claims 4, 5, 9, 10, 19, 20, 24 and 25 are rejected under 35 USC 103(a) as being unpatentable over Padovani, Lindskog et al. and Muller and further in view of Lee et al. (U.S. Patent Publication No. 2003/0123479).

Referring to claims 4, 9, 19 and 24, Padovani, Lindskog et al. and Muller teach the limitations of claims 4, 9, 19 and 24, but do not teach wherein the first standard is IS-2000 and the second standard is one of IxEV-DO and IxEV-DV. Lee et al teaches wherein the first standard is IS-2000 and the second standard is one of IxEV-DO and IxEV-DV (0024). Therefore, at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to combine the art of Padovani, Lindskog et al. and Muller with the teaching of Lee et al wherein

the first standard is IS-2000 and the second standard is one of IxEV-DO and IxEV-DV to provide a mobile subscriber with a packet service as well as a voice service (0024).

Referring to claims 5, 10, 20 and 25, Padovani, Lindskog et al. and Muller teach the limitations of claims 5, 10, 20 and 25, but do not teach wherein the first standard is one of IxEV-DO and IxEV -DV and the second standard is IS-2000. Lee et al teaches wherein the first standard is one of IxEV-DO and IxEV-DV and the second standard is IS-2000 (0024). Therefore, at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to combine the art of Padovani, Lindskog et al. and Muller with the teaching of Lee et al wherein the first standard is one of IxEV-DO and IxEV-DV and the second standard is IS-2000 to provide a mobile Subscriber with a packet service as well as a voice service (0024).

6. Claims 11, 12, 13, 26, 27 and 28 are rejected under 35 USC 103(a) as being unpatentable over Padovani in view of Lindskog et al. in view of Muller in view of Haartsen and further in view of Gerdisch et al.

Referring to claims 11 and 26, Padovani teaches for use in a base transceiver station of a wireless communications system, an apparatus for supporting dual standards (Figure 4) comprising: utilizing a first standard (Column 1, Lines 3-38, Column 5, Lines 13-18 and Column 11, Lines 13-15) within a coverage area (Figure 4, 126, 128 & 130); and utilizing a second standard (Column 1, Lines 39-41 & Column 11, Lines 10-11) within the coverage area (Figure 4, 126, 128 & 130) and handing off between the standards (Column 5, Lines 13-18), but does not

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teach handing off between a sectored antenna system for wireless communications and an omni antenna system for wireless communications. Lindskog et al. handling off between a sectored antenna system for wireless communications and an omni antenna system for wireless communications (Column 1, Lines 53-61 and Column 2, Lines 47-48). Therefore at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to combine the art of Padovani with the teaching of Lindskog et al. of handing off between a sectored antenna system for wireless communications and an omni antenna system for wireless communications to optimize performance and minimize interference of a cellular communication system (Column 2, Lines 45-54). Padovini further teaches inter-system hard handoff (Column 4, Lines 53-56), but does not teach handing off from a first frequency assignment to a second frequency assignment. Muller teaches wherein the inter-system hard handoff involves handing off from a first frequency assignment to a second frequency assignment (Column 4, Lines 6-13). Therefore, at the time of the invention, it would have been obvious to one of ordinary skill in the art to combine the teaching of Padovini and Lindskog with the teaching of Muller wherein the inter-system hard handoff involves handing off from a first frequency assignment to a second frequency assignment to account for handoff occasions that require switching to a new frequency (Column 3, Lines 48-50). Padovani, Lindskog et al. and Muller teach the limitations of claims 11 and 26, but do not teach wherein one of the first and second standards is compatible with the other of the first and second standards. Haartsen teaches wherein one of the first and second standards is compatible with the other of the first and second standards (Column 4, Lines 19-26). Therefore at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to combine the art of Padovani, Lindskog et al. and Muller with the teaching of

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Haartsen wherein one of the first and second standards is compatible with the other of the first and second standards to eliminate the need for additional transmit and receive circuitry within the mobile terminal (Column 4, Lines 26-28). Padovani, Lindskog et al., Muller and Haartsen teach the limitations of claims 11 and 26 but do not teach upon failure of wireless communications utilizing the other of the first and second standards within the coverage area, wireless communications utilizing the other of the first and second standards within the coverage area is resumed with the antenna system employed. Gerdisch et al. teaches upon failure of wireless communications utilizing the other of the first and second standards within the coverage area (Figure 2, 206 & 208), wireless communications utilizing the other of the first and second standards within the coverage area is resumed with the antenna system employed (Column 6, Lines 1-5). Therefore at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to combine the teaching of Padovani, Lindskog et al., Muller and Haartsen with the teaching of Gerdisch et al. wherein upon failure of wireless communications utilizing the other of the first and second standards within the coverage area, wireless communications utilizing the other of the first and second standards within the coverage area is resumed with the antenna system employed to provide continued communication when a link fails (Column 5, Line 65 to Column 6, Line 7).

Referring to claims 12 and 27, Lindskog et al. further teaches wherein the first antenna system is a sectored system and the second antenna system is an Omni system (Column 2, Lines 47-48).

Referring to claims 13 and 28, Lindskog et al further teaches wherein the first antenna system is an omni system and the second antenna system is a sectored system (Column 2, Lines 47-48).

7. Claims 14, 15, 29 and 30 are rejected under 35 USC 103(a) as being unpatentable over Padovani, Lindskog et al., Muller, Haartsen and Gerdisch et al. in view of Lee et al.

Referring to claims 14 and 29, Padovani, Lindskog et al., Muller, Haartsen and Gerdisch et al. teach the limitations of claims 14 and 29, but do not teach wherein the first standard is IS-2000 and the second standard is one of IxEV-DO and IxEV-DV. Lee et al teaches wherein the first standard is IS-2000 and the second standard is one of IxEV-DO and IxEV-DV (0024). Therefore, at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to combine the art of Padovani, Lindskog et al., Muller, Haartsen and Gerdisch et al. with the teaching of Lee et al wherein the first standard is IS-2000 and the second standard is one of IxEV-DO and IxEV-DV to provide a mobile subscriber with a packet service as well as a voice service (0024).

Referring to claims 15 and 30, Padovani, Lindskog et al., Muller, Haartsen and Gerdisch et al. teach the limitations of claims 15 and 30, but do not teach wherein the first standard is one of IxEV-DO and IxEV-DV and the second standard is IS-2000. Lee et al teaches wherein the first standard is one of IxEV-DO and IxEV-DV and the second standard is IS-2000 (0024). Therefore, at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to combine the art of Padovani, Lindskog et al., Muller, Haartsen and Gerdisch et al. with

the teaching of Lee et al wherein the first standard is one of IxEV-DO and IxEV-DV and the second standard is IS-2000 to provide a mobile Subscriber with a packet service as well as a voice service (0024).

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James D. Ewart whose telephone number is (571) 272-7864. The examiner can normally be reached on M-F 7am - 4pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Trost can be reached on (571) 272-7872. The fax phone numbers for the organization where this application or proceeding is assigned are (571) 273-8300 for regular communications and (571) 273-8300 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-2600.



James Ewart
December 06, 2007



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